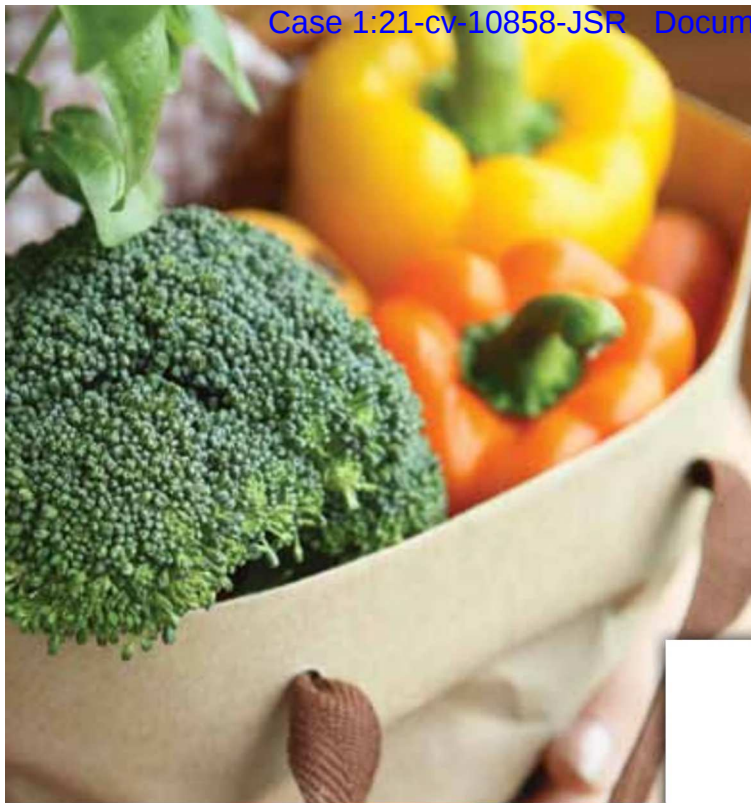
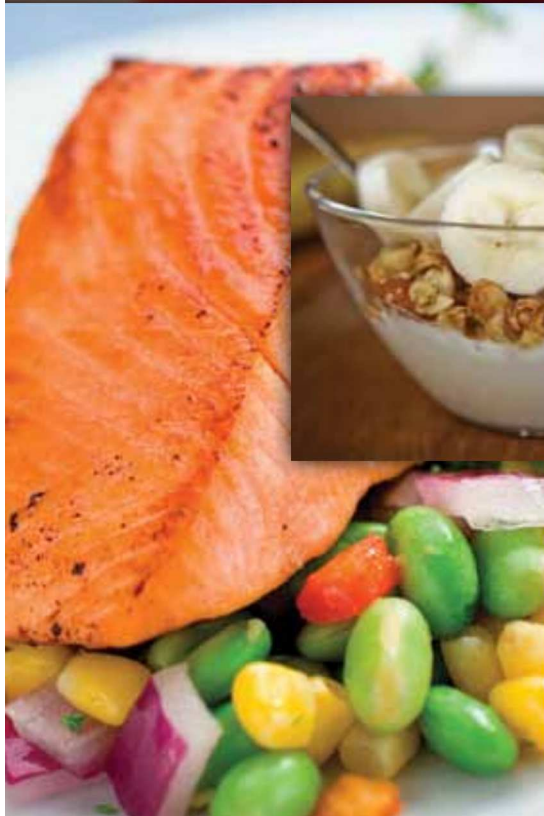


Exhibit 4



Dietary Guidelines for Americans 2010

U.S. Department of Agriculture
U.S. Department of Health and Human Services
www.dietaryguidelines.gov





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December 2010

Appendices

- Appendix 1** Guidance for Specific Population Groups
- Appendix 2** Key Consumer Behaviors and Potential Strategies for Professionals to Use in Implementing the 2010 Dietary Guidelines
- Appendix 3** Food Safety Principles and Guidance for Consumers
- Appendix 4** Using the Food Label to Track Calories, Nutrients, and Ingredients
- Appendix 5** Nutritional Goals for Age-Gender Groups, Based on Dietary Reference Intakes and Dietary Guidelines Recommendations
- Appendix 6** Estimated Calorie Needs per Day by Age, Gender, and Physical Activity Level (Detailed)
- Appendix 7** USDA Food Patterns
- Appendix 8** Lacto-ovo Vegetarian Adaptation of the USDA Food Patterns
- Appendix 9** Vegan Adaptation of the USDA Food Patterns
- Appendix 10** The DASH Eating Plan at Various Calorie Levels
- Appendix 11** Estimated EPA and DHA and Mercury Content in 4 Ounces of Selected Seafood Varieties
- Appendix 12** Selected Food Sources Ranked by Amounts of Potassium and Calories per Standard Food Portion
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- Appendix 14** Selected Food Sources Ranked by Amounts of Calcium and Calories per Standard Food Portion
- Appendix 15** Selected Food Sources Ranked by Amounts of Vitamin D and Calories per Standard Food Portion
- Appendix 16** Glossary of Terms

The *Dietary Guidelines for Americans, 2010* is intended for Americans ages 2 years and older, including those who are at increased risk of chronic disease. Topic areas

that provide additional guidance for specific population groups are listed below along with the chapter and page number where the information can be found.

Topic Area	Chapter	Page No.
Children and Adolescents		
Healthy body weight	2 and 6	9, 10, 58
Physical activity	2 and 6	17, 18, 58, 59
Limits on screen time	2 and 6	19, 59
Breakfast	2	19
Sugar-sweetened beverages	2 and 5	16, 47–48
100% juice	2, 4, and 5	16, 36, 47
Alcohol consumption	3	21, 31
Iron intake (adolescent girls)	4	34, 41
Women Capable of Becoming Pregnant^a		
Healthy body weight	2	9, 10
Iron intake	4	34, 41
Folic acid intake	4 and 5	34, 41–42, 49
Women Who Are Pregnant^a		
Gestational weight gain	2 and 6	9, 10, 58
Alcohol consumption	3	31
Seafood consumption	4	34, 39
Iron supplementation	4 and 5	34, 41, 49
Women Who Are Breastfeeding		
Alcohol consumption	3	31
Seafood consumption	4	34, 39
Older Adults		
Healthy body weight	2	9, 10, 18
Sodium intake	3	21, 22, 23, 24
Vitamin B ₁₂	4 and 5	34, 42, 49
Adults at High Risk of Chronic Disease		
Healthy body weight (overweight and obese adults)	2	16, 17, 18, 19
Saturated fat and cholesterol intake (adults at risk of cardiovascular disease)	3	24, 27
Sodium intake (adults with hypertension and African Americans)	3	21, 24
Alcohol consumption (adults taking certain medications; adults with certain medical conditions)	3	32
Potassium intake (adults with hypertension and African Americans)	4	40
a. Includes adolescent girls.		

The *Dietary Guidelines for Americans, 2010* includes recommendations based on the most recent evidence-based review of nutrition science. Two overarching concepts emerge from these recommendations: maintain calorie balance to achieve and sustain a healthy weight; and focus on nutrient-dense foods and beverages. Brief descriptions of these concepts are provided to the right.

Health professionals, educators, policymakers, and other professionals will use the *Dietary Guidelines for Americans, 2010* to help the American public lead healthy lives. This section, which includes a table of key consumer behaviors and potential strategies, or “how-tos,” is designed to assist these professionals as they encourage healthy habits. For practical purposes, this table is organized by 12 specific topic areas (calorie intake, physical activity, vegetables, fruits, milk and milk products, protein foods, grains, oils and fats, added sugars, sodium, alcohol, and food safety).

The strategies presented in the table are not evidence-based recommendations. They are presented as helpful hints that could be tailored for different individuals or groups.

When working with consumers, professionals should draw from research and use theory-based approaches when possible. Ultimately, successful consumer messages will vary based on the target audience and should be tested with the specific target audience before use. Therefore, the potential strategies in the following table are intended to be a conceptual starting point for further message development and not a definitive or comprehensive resource.

OVERARCHING CONCEPTS

Maintain calorie balance to achieve and sustain a healthy weight

Control total calorie intake to manage body weight. For most people, this will mean consuming fewer calories by making informed food and beverage choices. Increase physical activity and reduce time spent in sedentary behaviors.

Focus on nutrient-dense foods and beverages

Increase intake of foods that are consumed below recommended amounts. For most people, this means choosing more vegetables, fruits, whole grains, fat-free or low-fat milk and milk products, seafood, and oils.

Reduce intake of foods and food components consumed in excessive amounts. For most people, this means consuming fewer foods and beverages high in solid fats (sources of saturated and *trans* fatty acids), added sugars, and sodium (i.e., consume these foods and beverages less often and in small amounts). If alcohol is consumed at all, it should be consumed in moderation and only by adults of legal drinking age.

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals

The strategies presented in this table are not evidence-based recommendations. They are presented as helpful hints that could be tailored for different individuals or groups.

Topic Area	Key Consumer Behaviors	Potential Strategies
CALORIE INTAKE	Consume foods and drinks to meet, not exceed, calorie needs.	Know your calorie needs. See Table 2-3 and Appendix 6 for estimates. Weigh yourself and adjust what and how much you eat and/or your physical activity based on your weight change over time.
	Plan ahead to make better food choices.	Prepare and pack healthy meals at home for children and/or adults to eat at school or work. Have healthy snacks available at home and bring nutrient-dense snacks to eat when on-the-go. Think ahead before attending parties: Eat a small, healthy snack before heading out. Plan to take small portions and focus on healthy options. Consider whether you are hungry before going back for more. Choose a place to talk with friends that is some distance from the food table.
	Track food and calorie intake.	Track what you eat using a food journal or an online food planner (e.g., http://www.mypyramidtracker.gov). Check the calories and servings per package on the Nutrition Facts label. For foods and drinks that do not have a label or posted calorie counts, try an online calorie counter. Pay attention to feelings of hunger. Eat only until you are satisfied, not full. If you tend to overeat, be aware of time of day, place, and your mood while eating so you can better control the amount you eat. Limit eating while watching television, which can result in overeating. If you choose to eat while watching television, portion out a small serving.
	Limit calorie intake from solid fats and added sugars.	Choose foods prepared with little or no added sugars or solid fats. Identify the amount of calories from added sugars and solid fats contained in foods and drinks at http://www.myfoodapedia.gov . Choose products with less added sugars and solid fats. Select products that contain added sugars and solid fats less often. When you have foods and drinks with added sugars and solid fats, choose a small portion.
	Reduce portions, especially of high-calorie foods.	Use smaller plates. Portion out small amounts of food. To feel satisfied with fewer calories, replace large portions of high-calorie foods with lower calorie foods, like vegetables and fruits.
	Cook and eat more meals at home, instead of eating out.	Cook and eat at home more often, preferably as a family. When preparing meals, include vegetables, fruits, whole grains, fat-free or low-fat dairy products, and protein foods that provide fewer calories and more nutrients. Experiment with healthy recipes and ingredient substitutions.

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals
(Continued)

Topic Area	Key Consumer Behaviors	Potential Strategies
CALORIE INTAKE (Continued)	Think about choosing healthy options when eating out.	<p>When eating out, choose a smaller size option (e.g., appetizer, small plate). Manage larger portions by sharing or taking home part of your meal.</p> <p>Check posted calorie counts or check calorie counts online before you eat at a restaurant.</p> <p>When eating out, choose dishes that include vegetables, fruits, and/or whole grains.</p> <p>When eating out, avoid choosing foods with the following words: creamy, fried, breaded, battered, or buttered. In addition, keep portions of syrups, dressings, and sauces small.</p>
PHYSICAL ACTIVITY	Limit screen time.	<p>Limit the amount of time you spend watching television or using other media such as video games. This is especially important for children and adolescents.</p> <p>Use the time you watch television to be physically active in front of the television.</p>
	Increase physical activity.	<p>Pick activities you like and that fit into your life. For children, activity should be fun and developmentally appropriate.</p> <p>Be active with family and friends. Having a support network can help you stay active.</p> <p>Keep track of your physical activity and gradually increase it to meet the recommendations of the <i>2008 Physical Activity Guidelines for Americans</i>. Physical activity can be tracked at http://www.presidentschallenge.org or by using logs like the one found at http://www.health.gov/paguidelines.</p>
	Choose moderate- or vigorous-intensity physical activities.	<p>Choose moderate-intensity activities, which include walking briskly, biking, dancing, general gardening, water aerobics, and canoeing.</p> <p>You can replace some or all of your moderate-intensity activity with vigorous activity. With vigorous activities, you get similar health benefits in half the time it takes you with moderate ones. Vigorous activities include aerobic dance, jumping rope, race walking, jogging, running, soccer, swimming fast or swimming laps, and riding a bike on hills or riding fast.</p> <p>Adults should include muscle-strengthening activities at least 2 days a week. Muscle-strengthening activities include lifting weights, push-ups, and sit-ups. Choose activities that work all the different parts of the body—the legs, hips, back, chest, stomach, shoulders, and arms.</p> <p>Encourage children to do muscle-strengthening activities such as climbing at least 3 days a week and bone-strengthening activities, such as jumping, at least 3 days a week.</p>
	Avoid inactivity. Some physical activity is better than none.	<p>Start with 10-minute chunks of physical activity a couple of days a week. Every bit counts, and doing something is better than doing nothing.</p> <p>Walking is one way to add physical activity to your life. Build up to walking longer and more often. Pick up the pace as you go.</p>
	Slowly build up the amount of physical activity you choose.	<p>Start by being active for longer each time; then do more by being active more often.</p>

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals
(Continued)

Topic Area	Key Consumer Behaviors	Potential Strategies
VEGETABLES	<p>Increase vegetable intake.</p> <p>Eat recommended amounts of vegetables, and include a variety of vegetables, especially dark-green vegetables, red and orange vegetables, and beans and peas.</p>	<p>Include vegetables in meals and in snacks. Fresh, frozen, and canned vegetables all count. When eating canned vegetables, choose those labeled as reduced sodium or no salt-added.</p> <p>Add dark-green, red, and orange vegetables to soups, stews, casseroles, stir-fries, and other main and side dishes. Use dark leafy greens, such as romaine lettuce and spinach, to make salads.</p> <p>Focus on dietary fiber—beans and peas are a great source. Add beans or peas to salads (e.g., kidney or garbanzo beans), soups (e.g., split peas or lentils), and side dishes (e.g., baked beans or pinto beans), or serve as a main dish.</p> <p>Keep raw, cut-up vegetables handy for quick snacks. If serving with a dip, choose lower calorie options, such as yogurt-based dressings or hummus, instead of sour cream or cream cheese-based dips.</p> <p>When eating out, choose a vegetable as a side dish. With cooked vegetables, request that they be prepared with little or no fat and salt. With salads, ask for the dressing on the side so you can decide how much you use.</p> <p>When adding sauces, condiments, or dressings to vegetables, use small amounts and look for lower calorie options (e.g., reduced-fat cheese sauce or fat-free dressing). Sauces can make vegetables more appealing, but often add extra calories.</p>
FRUITS	<p>Increase fruit intake.</p> <p>Eat recommended amounts of fruits and choose a variety of fruits. Choose whole or cut-up fruits more often than fruit juice.</p>	<p>Use fruit as snacks, salads, or desserts.</p> <p>Instead of sugars, syrups, or other sweet toppings, use fruit to top foods such as cereal and pancakes.</p> <p>Enjoy a wide variety of fruits, and maximize taste and freshness by adapting your choices to what is in season.</p> <p>Keep rinsed and cut-up fruit handy for quick snacks.</p> <p>Use canned, frozen, and dried fruits, as well as fresh fruits. Unsweetened fruit or fruit canned in 100% juice is the better choice because light or heavy syrup adds sugar and calories.</p> <p>Select 100% fruit juice when choosing juices.</p>
MILK AND MILK PRODUCTS (DAIRY PRODUCTS)	<p>Increase intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, and fortified soy beverages.^a</p> <p>Replace higher fat milk and milk products with lower fat options.</p>	<p>Drink fat-free (skim) or low-fat (1%) milk. If you currently drink whole milk, gradually switch to lower fat versions. This change will cut calories, but will not reduce calcium or other essential nutrients.</p> <p>When drinking beverages, such as cappuccino or latte, request fat-free or low-fat milk.</p> <p>Use fat-free or low-fat milk on cereal and oatmeal. Top fruit salads with fat-free or low-fat yogurt.</p> <p>When recipes such as dip call for sour cream, substitute plain fat-free or low-fat yogurt.</p> <p>When selecting cheese, choose low-fat or reduced-fat versions.</p> <p>If you are lactose intolerant, try lactose-free milk, drink smaller amounts of milk at a time, or try fortified soy beverages.</p> <p>Choose fat-free or low-fat milk or yogurt more often than cheese. Milk and yogurt are better sources of potassium and are lower in sodium than most cheeses. Also, most milk is fortified with vitamin D.</p>

a. Fortified soy beverages have been marketed as “soymilk,” a product name consumers could see in supermarkets and consumer materials. However, FDA’s regulations do not contain provisions for the use of the term soymilk. Therefore, in this document, the term “fortified soy beverage” includes products that may be marketed as soymilk.

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals
(Continued)

Topic Area	Key Consumer Behaviors	Potential Strategies
PROTEIN FOODS	<p>Choose a variety of foods from the protein foods group.</p> <p>Increase the amount and variety of seafood consumed by choosing seafood in place of some meat and poultry.</p>	<p>Eat a variety of foods from the protein foods group each week. This group includes seafood, beans and peas, and nuts, as well as lean meats, poultry, and eggs.</p> <p>Eat seafood in place of meat or poultry twice a week. Select some seafood that is higher in oils and lower in mercury, such as salmon, trout, and herring.</p> <p>Select lean meats and poultry. Choose meat cuts that are low in fat and ground beef that is extra lean (at least 90% lean). Trim or drain fat from meat and remove poultry skin before cooking or eating.</p> <p>Try grilling, broiling, poaching, or roasting. These cooking methods do not add extra fat.</p> <p>Drain fat from ground meats after cooking. Avoid breading on meat and poultry, which adds calories.</p>
GRAINS		
WHOLE GRAINS	<p>Increase whole-grain intake.</p> <p>Consume at least half of all grains as whole grains.</p>	<p>Substitute whole-grain choices for refined grains in breakfast cereals, breads, crackers, rice, and pasta. For example, choose 100% whole-grain breads; whole-grain cereals such as oatmeal; whole-grain crackers and pasta; and brown rice.</p> <p>Check the ingredients list on product labels for the words “whole” or “whole grain” before the grain ingredient’s name.</p> <p>Note that foods labeled with the words “multi-grain,” “stone-ground,” “100% wheat,” “cracked wheat,” “seven-grain,” or “bran” are usually not 100% whole-grain products, and may not contain any whole grains.</p> <p>Use the Nutrition Facts label and the ingredients list to choose whole grains that are a good or excellent source of dietary fiber. Good sources of fiber contain 10 to 19 percent of the Daily Value per serving, and excellent sources of dietary fiber contain 20 percent or more.</p>
REFINED GRAINS	<p>Whenever possible, replace refined grains with whole grains.</p>	<p>Eat fewer refined grain products, especially those that are high in calories from solid fats and/or added sugars, such as cakes, cookies, other desserts, and pizza.</p> <p>Replace white bread, rolls, bagels, muffins, pasta, and rice with whole-grain versions.</p> <p>When choosing a refined grain, check the ingredients list to make sure it is made with enriched flour.</p>

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals
(Continued)

Topic Area	Key Consumer Behaviors	Potential Strategies
OILS AND FATS		
OILS	Use oils instead of solid fats, when possible.	<p>When using spreads, choose soft margarines with zero <i>trans</i> fats made from liquid vegetable oil, rather than stick margarine or butter. If you do use butter, use only a small amount.</p> <p>When cooking, use vegetable oils such as olive, canola, corn, safflower, or sunflower oil rather than solid fats (butter, stick margarine, shortening, lard).</p> <p>Consider calories when adding oils to foods or in cooking. Use only small amounts to keep calories in check.</p> <p>Use the ingredients list to choose foods that contain oils with more unsaturated fats. Use the Nutrition Facts label to choose foods that contain less saturated fat.</p>
SOLID FATS	<p>Cut back on solid fats.</p> <p>Choose foods with little solid fats and prepare foods to minimize the amount of solid fats.</p> <p>Limit saturated fat intake and keep <i>trans</i> fat intake as low as possible.</p>	<p>Eat fewer foods that contain solid fats. The major sources for Americans are cakes, cookies, and other desserts (often made with butter, margarine, or shortening); pizza; cheese; processed and fatty meats (e.g., sausages, hot dogs, bacon, ribs); and ice cream.</p> <p>Select lean meats and poultry, and fat-free or low-fat milk and milk products.</p> <p>When cooking, replace solid fats such as butter, beef fat, chicken fat, lard, stick margarine, and shortening with oils; or choose cooking methods that do not add fat.</p> <p>Choose baked, steamed, or broiled rather than fried foods most often.</p> <p>Check the Nutrition Facts label to choose foods with little or no saturated fat and no <i>trans</i> fat.</p> <p>Limit foods containing partially hydrogenated oils, a major source of <i>trans</i> fats.</p>
ADDED SUGARS	Cut back on foods and drinks with added sugars or caloric sweeteners (sugar-sweetened beverages).	<p>Drink few or no regular sodas, sports drinks, energy drinks, and fruit drinks. Eat less cake, cookies, ice cream, other desserts, and candy. If you do have these foods and drinks, have a small portion. These drinks and foods are the major sources of added sugars for Americans.</p> <p>Choose water, fat-free milk, 100% fruit juice, or unsweetened tea or coffee as drinks rather than sugar-sweetened drinks.</p> <p>Select fruit for dessert. Eat less of high-calorie desserts.</p> <p>Use the Nutrition Facts label to choose breakfast cereals and other packaged foods with less total sugars, and use the ingredients list to choose foods with little or no added sugars.</p>

TABLE A2 1. Key Consumer Behaviors and Potential Strategies for Professionals
(Continued)

Topic Area	Key Consumer Behaviors	Potential Strategies
SODIUM	<p>Reduce sodium intake.</p> <p>Choose foods low in sodium and prepare foods with little salt.</p> <p>Increase potassium intake.</p>	<p>Use the Nutrition Facts label to choose foods lower in sodium.</p> <p>When purchasing canned foods, select those labeled as “reduced sodium,” “low sodium,” or “no salt added.” Rinse regular canned foods to remove some sodium. Many packaged foods contain more sodium than their made-from-fresh counterparts.</p> <p>Use little or no salt when cooking or eating. Trade in your salt shaker for the pepper shaker. Spices, herbs, and lemon juice can be used as alternatives to salt to season foods with a variety of flavors.</p> <p>Gradually reduce the amount of sodium in your foods. Your taste for salt will change over time.</p> <p>Get more potassium in your diet. Food sources of potassium include potatoes, cantaloupe, bananas, beans, and yogurt.</p>
ALCOHOL	<p>For adults of legal drinking age who choose to drink alcohol, consume it in moderation.</p> <p>Avoid alcohol in certain situations that can put you at risk.</p>	<p>Limit alcohol to no more than 1 drink per day for women and 2 drinks per day for men.</p> <p>Avoid excessive (heavy or binge) drinking.</p> <p>Consider the calorie content of mixers as well as the alcohol.</p> <p>If breastfeeding, wait at least 4 hours after drinking alcohol before breastfeeding. Alcohol should not be consumed at all until consistent latch on and breastfeeding patterns are established.</p> <p>Avoid alcohol if you are pregnant or may become pregnant; if under the legal drinking age; if you are on medication that can interact with alcohol; if you have medical conditions that could be worsened by drinking; and if planning to drive, operate machinery, or do other activities that could put you at risk if you are impaired.</p> <p>Do not begin drinking or drink more frequently on the basis of potential health benefits.</p>
FOOD SAFETY	<p>Be food safe.</p>	<p>Clean: Wash hands, utensils, and cutting boards before and after contact with raw meat, poultry, seafood, and eggs.</p> <p>Separate: Keep raw meat and poultry apart from foods that won’t be cooked.</p> <p>Cook: Use a food thermometer. You can’t tell if food is cooked safely by how it looks.</p> <p>Chill: Chill leftovers and takeout foods within 2 hours and keep the refrigerator at 40°F or below.</p>



